polars in the production of a true endosperm nucleus. In the orchids which he has investigated, therefore, lack of endosperm cannot be charged to the failure of double fertilization.

In normally fertilized *Spiranthes cernua*, after fertilization, a well-formed nucleus of at least twice the size of a single antipodal is to be seen near the middle of the sac. It is this which is pushed to the base of the sac by the growth of the embryo.

In one of my preparations (by paraffine) may be seen a sac containing a very young embryo, the synergides near by, the antipodals in their places, and toward the centre of the sac two nuclei about the size of the antipodals, lying in contact, while between and touching both is a much smaller, deeply staining nucleus presenting the usual appearance of the spermatic nuclei of orchids. Here we have the origin of the large central nucleus clearly indicated.

These facts lead me to suppose that in *Spiranthes cernua* polar fusion and double fertilization give rise to a true endosperm nucleus. Nevertheless, no endosperm in formed. The nucleus remains at the end of the sac where probably, by vitalizing the protoplasm around it, it assists in passing along nutriment to the embryo.

(*To be continued.*)

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NOTEWORTHY PLANTS OF SOUTHEASTERN CONNECTICUT,— II.

C. B. Graves.

To the observations reported in a former paper (Rhodora, i, 67) the following may be added as a further contribution to our knowledge of the plant life along the southern borders of New England.

Panicum Atlanticum Nash — Franklin, Old Lyme.

Panicum Bicknellii Nash — Lamb's Hill in Norwich.

Panicum Addisonii Nash — Sandy terrace near Pachaug Pond in Griswold.

Panicum Eatoni Nash — Borders of ponds and marshes both fresh and brackish.

Eleocharis diandra Chas. Wright — Shores of Connecticut River and

of Selden's Cove in Lyme. Originally collected near Hartford, this species has subsequently been found (in one of its forms) along the Connecticut at stations in Massachusetts, New Hampshire and Vermont (see RHODORA, ii, 60). This new station thus extends its known range in New England quite to the mouth of the Connecticut River.

Scirpus Torreyi Olney — with the preceding growing abundantly; in good condition by July 10. Probably its first record in the state.

Carex tetanica Schk. — One station in Waterford. This rare species, otherwise known in New England only from northern Maine and from Berkshire County, Massachusetts, is to be expected in western Connecticut.

Carex ptychocarpa Steud.— With the last. A southern species known from only two more northern stations, one in Rhode Island, the other in Purgatory Swamp, Norwood, Massachusetts.

Sagittaria subulata (L.) Buchenau — Shore of Selden's Cove in Lyme; first reported from this station many years ago by Miss Thompson of East Haddam. This is apparently the only known station in New England.

Sagittaria heterophylla Pursh.— Shores of Connecticut River and Selden's Cove in Lyme; also in Norwich (Setchell).

Sagittaria Engelmanniana J. G. Smith — Waterford, in peat bogs. Not previously recorded from Connecticut, although known from Long Island and from Cape Cod.

Commelina communis L. — Occasionally seen in gutters and waste places, New London.

Rumex altissimus Wood — One plant in waste ground, New London; has been observed now for three seasons.

Rumex Patientia L.— A few plants near Selden's Cove in Lyme. This and the preceding species are apparently seldom seen in Connecticut.

Prunus Alleghaniensis Porter.— Specimens of a plum which Mr. Fernald has identified as this species were collected by the writer in 1898 and 1899 in Lisbon, where it was found growing sparingly on sandy bottoms along the Quinebaug River. This species has been known hitherto only from central Pennsylvania.

Linum medium (Planch.) Britton — Sandy roadsides, Waterford and Old Lyme. This would seem to be one of those plant forms which are more easily distinguished in the field than in the herba-

rium. As seen by me the expanded flowers are distinctly larger and paler than those of *L. Virginianum* L.

Vaccinium Pennsylvanicum angustifolium (Ait.) A. Gray — A small patch of this northern form was found in 1899 near the edge of Great Cedar Swamp, Voluntown. In New England ordinarily confined to the higher mountain summits.

Lonicera coerulea L.— Abundant in Voluntown, especially in the wet sphagnous meadows bordering the cedar swamps. It here fruits very freely, the delicious berries which much resemble blueberries in flavor being fully ripe and loading the bushes on June 17, 1899.

Rhamnus cathartica L.— Lebanon, a few plants by roadsides.

Ilex laevigata Gray — Cedar swamps in Ledyard, North Stonington and Voluntown.

Barbarea praecox R.Br.—Cultivated ground at Scotch Cap, Waterford, 1899 and 1900. Apparently its first record in New England.

Silene dichotoma Ehrh.—Waste ground, New London, 1898.

Cerastium semidecandrum L.— Abundant in old fields near Niantic River, East Lyme. Formerly unknown north of New Jersey.

Spiraea ulmifolia Scop.— Sparingly escaped to a roadside thicket near Cedar Grove Cemetery, New London.

Aster Schreberi Nees — Wooded banks, Montville and Norwich.

Chrysanthemum Balsamita L. — Escaped to the roadside near farm houses at two places in East Lyme and one in Groton. One of these stations was discovered about ten years ago, and the plant was then well established. A resident of one of these houses when asked the name of this plant called it "beaver's tongue."

New London, Conn.

The Sixth Annual Winter Meeting of the Vermont Botanical Club was held at the University of Vermont on the 25th and 26th of January. Fourteen papers were presented. Among the more important of which was that of President Brainerd, entitled: The present Status of Vermont Botany. It was an able discussion of the flora as presented in the new catalogue of Vermont plants. In outlining the work of the Club in the future, he maintained that plants in the field in their ecological and physiological relations should receive more attention. Much interest was manifested in the account of the finding of a plumose variety of *Asplenium ebeneum* Ait. by Mrs. Frances B. Horton of Brattleboro. Dr. E. A. Burt gave a detailed description of *Tremella mycetophila* Pk. and stated his reasons for transferring it to *Exobasidium mycetophilum* (Pk.) Burt.